## CLAIMS

1. A transmission device for use in digital wireless loudspeaker system, the transmission device comprising:

means for receiving input digital audio data,

means for generating RF transmission data based upon the input digital audio data and including frame markers appearing at fixed intervals in the RF transmission data, and

means for transmitting an RF signal based upon the RF transmission data.

2. The transmission device of claim 1, further including:

means for obtaining an audio sample clock synchronized to the input digital audio data; and

means for generating an RF transmission clock based upon the audio sample clock;

wherein the means for transmitting an RF signal transmits the RF signal based upon the transmission data and the transmission clock.

3. The transmission device of claim 2, wherein the means for obtaining an audio sample clock comprises means for receiving a discrete input audio sample clock associated with the input audio data.

4. The transmission device of claim 2, wherein the means for obtaining an audio sample clock comprises means for deriving the audio sample clock from the input audio data.

5. The transmission device of claim 1, wherein the RF signal is

transmitted continuously as a real time data stream.

6. The transmission device of claim 1, wherein the RF signal includes status data.

7. The transmission device of claim 6, wherein the status data includes a control signal for activating a wireless speaker.

8. The transmission device of claim 6, wherein the status data includes a control signal for controlling volume of sound broadcast at a wireless speaker.

9. The transmission device of claim 1, wherein the RF signal includes two channels of audio data.

10. The transmission device of claim 9, wherein the means for transmitting transmits two RF signals at two different RF frequencies, each RF signal based upon one of the transmission data audio channels.

11. The transmission device of claim 9, further including means for multiplexing the two channels of audio transmission data onto the same RF transmission channel prior to transmission.

12. The transmission device of claim 9, wherein the RF signal further includes a channel of status data.

13. The transmission device of claim 1, wherein the input digital audio data comprises digital audio samples in the form of a digital audio bit-stream, and wherein the frame markers are positioned within the bitstream with a temporal accuracy of at least one audio data sample.

14. The transmission device of claim 13, wherein the frame markers are positioned within the bitstream with a temporal accuracy at least on the order of an audio data bit from said bit-stream.

15. The transmission device of claim 13, wherein the frame markers are positioned within the bitstream with a temporal accuracy at least on the order of one clock period of the RF transmission clock.

16. The transmission device of claim 1, further including a digital audio encoder for compressing the input digital audio data.

17. The transmission device of claim 16, wherein the encoder is a perceptual audio encoder.

18. A transmission device for use in digital wireless loudspeaker system, the transmission device comprising:

means for receiving input digital audio data;

means for obtaining an audio sample clock synchronized to the input digital audio data;

means for generating RF transmission data based upon the input digital audio data;

means for generating an RF transmission clock based upon the audio sample clock; and

means for transmitting an RF signal based upon the transmission data and the transmission clock.

19. The transmission device of claim 18, wherein the means for obtaining an audio sample clock comprises means for receiving a discrete input audio sample clock associated with the input audio data.

20. The transmission device of claim 18, wherein the means for obtaining an audio sample clock comprises means for deriving the audio sample clock from the input audio data.

21. The transmission device of claim 18, wherein the RF signal includes frame markers appearing at fixed intervals in the RF transmission data.

22. The transmission device of claim 21, wherein the input digital audio data comprises digital audio samples in the form of a digital audio bit-stream, and wherein the frame markers are positioned within the bitstream with a temporal accuracy of at least one audio data sample.

23. The transmission device of claim 21, wherein the frame markers are positioned within the bitstream with a temporal accuracy at least on the order of an audio data bit from said bit-stream.

24. The transmission device of claim 21, wherein the input digital audio data comprises digital audio samples in the form of a digital audio bit-stream, and wherein the frame markers are positioned within the bitstream with a temporal accuracy at least on the order of one clock period of the RF transmission clock.

25. The transmission device of claim 18, wherein the RF signal is transmitted continuously as a real time data stream.

26. The transmission device of claim 18, wherein the RF signal includes status data.

27. The transmission device of claim 26, wherein the status data includes a control signal for activating a wireless speaker.

28. The transmission device of claim 26, wherein the status data includes a control signal for controlling volume of sound broadcast at a wireless speaker.

29. The transmission device of claim 18, wherein the RF signal includes two channels of audio data.

30. The transmission device of claim 29, wherein the means for transmitting transmits two RF signals at two different RF frequencies, each RF signal based upon one of the transmission data audio channels.

31. The transmission device of claim 29, further including means for multiplexing the two channels of audio transmission onto the same RF transmission channel data prior to transmission.

32. The transmission device of claim 29, wherein the RF signal further includes a channel of status data.

33. The transmission device of claim 18, further including a digital audio encoder for compressing the input digital audio data.

34. The transmission device of claim 33, wherein the encoder is a perceptual audio encoder.

35. A transmission device for use in digital wireless loudspeaker system, the transmission device comprising:

means for receiving digital audio data streams from two discrete sources;

means for selecting one of the data streams as input digital audio data;

means for generating RF transmission data based upon the input digital audio data; and

means for transmitting an RF signal based upon the transmission data.

36. The transmission device of claim 35, wherein one of the discrete sources is an audio CD player, and the other discrete source is a DVD player.

37. The transmission device of claim 35, wherein the RF signal includes status data.

38. The transmission device of claim 37, wherein the status data includes a control signal for activating the wireless speaker.

39. The transmission device of claim 37, wherein the status data includes a control signal for controlling volume of the broadcast sound.

40. The transmission device of claim 35, further including:

means for obtaining an audio sample clock synchronized to the input digital audio data; and

means for generating an RF transmission clock based upon the audio sample clock;

wherein the means for transmitting an RF signal transmits the RF signal based upon the transmission data and the transmission clock.

41. The transmission device of claim 40, wherein the means for obtaining an audio sample clock comprises means for receiving a discrete input audio sample clock associated with the input audio data.

42. The transmission device of claim 40, wherein the means for obtaining an audio sample clock comprises means for deriving the audio sample clock from the input audio data.

43. The transmission device of claim 35, wherein the RF signal includes frame markers appearing at fixed intervals in the RF transmission data.

44. The transmission device of claim 43, wherein the input digital audio data comprises digital audio samples in the form of a digital audio bit-stream, and wherein the frame markers are positioned within the bitstream with a temporal accuracy of at least one audio data sample.

45. The transmission device of claim 44, wherein the frame markers are positioned within the bitstream with a temporal accuracy at least on the order of an audio data bit from said bit-stream.

46. The transmission device of claim 44, wherein the frame markers are positioned within the bitstream with a temporal accuracy at least on the order of one clock period of the RF transmission clock.

47. The transmission device of claim 35, wherein the RF signal is

transmitted continuously as a real time data stream.

48. The transmission device of claim 35, wherein the RF signal includes two channels of audio data.

49. The transmission device of claim 48, wherein the means for transmitting transmits two RF signals at two different RF frequencies, each RF signal based upon one of the transmission data audio channels.

50. The transmission device of claim 48, further including means for multiplexing the two channels of audio transmission onto the same RF transmission channel data prior to transmission.

51. The transmission device of claim 48, wherein the RF signal further includes a channel of status data.

52. The transmission device of claim 35, further including a digital audio encoder for compressing the input digital audio data.

53. The transmission device of claim 52, wherein the encoder is a perceptual audio encoder.

54. A transmission device for use in digital wireless loudspeaker system, the transmission device comprising:

means for receiving input digital audio data,

means for generating RF transmission data based upon the input digital audio data and further including status data, and

means for transmitting an RF signal based upon the RF transmission data.

55. The transmission device of claim 54, wherein the status data includes a control signal for activating a wireless speaker.

56. The transmission device of claim 54, wherein the status data includes a control signal for controlling volume of sound broadcast at a wireless speaker.

57. The transmission device of claim 54, further including:

means for obtaining an audio sample clock synchronized to the input digital audio data; and

means for generating an RF transmission clock based upon the audio sample clock;

wherein the means for transmitting an RF signal transmits the RF signal based upon the transmission data and the transmission clock.

58. The transmission device of claim 57, wherein the means for obtaining an audio sample clock comprises means for receiving a discrete input audio sample clock associated with the input audio data.

59. The transmission device of claim 57, wherein the means for

obtaining an audio sample clock comprises means for deriving the audio sample clock from the input audio data.

60. The transmission device of claim 54, wherein the RF signal is transmitted continuously as a real time data stream.

61. The transmission device of claim 54, wherein the RF signal includes two channels of audio data.

62. The transmission device of claim 61, wherein the means for transmitting transmits two RF signals at two different RF frequencies, each RF signal based upon one of the transmission data audio channels.

63. The transmission device of claim 61, further including means for multiplexing the two channels of audio transmission data onto the same RF transmission channel and the status data prior to transmission.

64. The transmission device of claim 54, wherein the RF signal includes frame markers appearing at fixed intervals in the RF transmission data.

65. The transmission device of claim 64, wherein the input digital audio data comprises digital audio samples in the form of a digital audio bit-stream, and wherein the frame markers are positioned within the bitstream with a temporal accuracy of at least one audio data sample.

66. The transmission device of claim 65, wherein the frame markers are positioned within the bitstream with a temporal accuracy at least on the order of an audio data bit from said bit-stream.

67. The transmission device of claim 65, wherein the frame markers are positioned within the bitstream with a temporal accuracy at least on the order of one clock period of the RF transmission clock.

68. The transmission device of claim 54, further including a digital audio encoder for compressing the input digital audio data.

69. The transmission device of claim 68, wherein the encoder is a perceptual audio encoder.

70. A transmission device for use in digital wireless loudspeaker system, the transmission device comprising:

means for receiving input digital audio data,

a digital audio encoder for compressing the input digital audio data;

means for generating RF transmission data based upon the compressed input digital audio data; and

means for transmitting an RF signal based upon the RF transmission data.

71. The transmission device of claim 70, wherein the encoder is a perceptual audio encoder.

72. The transmission device of claim 70, further including:

means for generating an audio sample clock synchronized to the compressed data; and

means for generating an RF transmission clock based upon the audio sample clock;

wherein the means for transmitting an RF signal transmits the RF signal based upon the transmission data and the transmission clock.

73. The transmission device of claim 72, wherein the means for generating an audio sample clock comprises means for receiving a discrete input audio clock associated with the input audio data and means for deriving the audio sample clock from the input audio clock.

74. The transmission device of claim 72, wherein the means for

generating an audio sample clock comprises means for deriving the audio sample clock from the compressed data.

75. The transmission device of claim 70, wherein the RF signal is transmitted continuously as a real time data stream.

76. The transmission device of claim 70, wherein the RF signal includes two channels of audio data.

77. The transmission device of claim 76, wherein the means for transmitting transmits two RF signals at two different RF frequencies, each RF signal based upon one of the transmission data audio channels.

78. The transmission device of claim 76, further including means for multiplexing the two channels of audio transmission data onto the same RF transmission channel prior to transmission.

79. The transmission device of claim 70, wherein the encoder further includes means for dividing the compressed data into frames, and means for generating frame markers synchronized to the frames.

80. The transmission device of claim 79, wherein the compressed data comprises digital audio samples in the form of a digital audio bit-stream, and wherein the frame markers are positioned within the bitstream with a temporal accuracy of at least compressed data sample.

81. The transmission device of claim 80, wherein the frame markers are positioned within the bitstream with a temporal accuracy at least on the order of an audio data bit from said bit-stream.

82. The transmission device of claim 80, wherein the frame markers are positioned within the bitstream with a temporal accuracy at least on the order of one clock period of the RF transmission clock.

83. The transmission device of claim 70, wherein the RF signal includes status data.

84. The transmission device of claim 83, wherein the status data includes a control signal for activating the wireless speaker.

85. The transmission device of claim 83, wherein the status data includes a control signal for controlling volume of the broadcast sound.